

Jeffries, Dawn (DEQ)

From: Jeffries, Dawn (DEQ)
Sent: Monday, June 15, 2015 2:55 PM
To: 'Don Smiley'
Subject: Massanutten Public Service Corporation STP, VPDES Permit No. VA0024732, Rockingham County

Mr. Don Smiley
Massanutten Public Service Corporation
P.O. Box 51
Elkton, VA 22827

Dear Mr. Smiley:

Your application has been reviewed and appears to be complete pending submittal of the monitoring results for Part D of Form 2A. The waiver you requested from sampling and reporting Total Residual Chlorine has been granted. The next steps involve assembling the information necessary to develop the permit limitations and then drafting the permit. Once the draft permit is prepared and the appropriate reviews are performed, I will transmit the draft permit and supporting documentation to you for review. I expect to have this draft permit package to you within the next 3 months.

The Department of Environmental Quality strives to complete the permitting process in a timely manner. If you have any questions about our procedures or the status of your draft permit, please do not hesitate to contact us.

Sincerely,
Dawn Jeffries
VA Dept. of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801
540-574-7898
dawn.jeffries@deq.virginia.gov

Jeffries, Dawn (DEQ)

From: Don Smiley [DESmiley@uiwater.com]
Sent: Thursday, June 11, 2015 3:38 PM
To: Jeffries, Dawn (DEQ)
Subject: RE: NANI and Odor Control Plan
Attachments: MPSC DT Summary.xlsx

Sure did, attached.

Yes, we use UV and want waiver from TRC.

-----Original Message-----

From: Jeffries, Dawn (DEQ) [<mailto:Dawn.Jeffries@deq.virginia.gov>]
Sent: Thursday, June 11, 2015 11:11 AM
To: Don Smiley
Subject: RE: NANI and Odor Control Plan

Don,

Thank you for your quick response. I have had some email trouble in the last day or two; did you get my email asking for the estimated amount of biosolids (dry metric tons) land applied from your facility per year?

Also, are you asking for a waiver for Part B.6 of Form 2A for TRC data since you use UV disinfection at the facility? That is my understanding, but I have to verify.

Sincerely,
Dawn

Dawn Jeffries
VA Dept. of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801
540-574-7898
dawn.jeffries@deq.virginia.gov

-----Original Message-----

From: Don Smiley [<mailto:DESmiley@uiwater.com>]
Sent: Wednesday, June 10, 2015 2:34 PM
To: Jeffries, Dawn (DEQ)
Subject: FW: NANI and Odor Control Plan

-----Original Message-----

From: Keith Sampson
Sent: Tuesday, June 09, 2015 11:55 AM
To: Don Smiley
Subject: FW: NANI and Odor Control Plan

Please notice the corrections in red by Tim Grove. Thanks

-----Original Message-----

From: Tim Grove [<mailto:tgrove@idmtrucking.com>]
Sent: Tuesday, June 09, 2015 11:40 AM
To: Keith Sampson
Subject: NANI and Odor Control Plan

Keith -

I made comments in red. Call with questions.

Tim

YEAR	GALLONS	SOLIDS	DRY TONS	DRY METRIC TONS
2010	876000	1.47	53.70	48.70
2011	1104000	1.48	68.13	61.80
2012	1152000	1.34	64.37	58.38
2013	1254000	1.3	67.98	61.66
2014	1278000	0.78	41.57	37.70

53.65 average

Jeffries, Dawn (DEQ)

From: Jeffries, Dawn (DEQ)
Sent: Wednesday, June 03, 2015 9:56 AM
To: 'DESmiley@uiwater.com'
Subject: FW: Reissuance of VPDES Permit No. VA0024732, Massanutten PSC STP, Rockingham County

Dear Mr. Smiley,

Thank you for the additional application information you submitted.

The permit reissuance for Massanutten PSC STP has been transferred from Jason Dameron to me, and I have received your permit application and referenced email.

I see in your Form 2A a waiver request for the effluent testing data in Part D, as was granted for previous reissuances. Unfortunately, I cannot grant the waiver again for this reissuance.

The Attachment A sampling results can be used for one of the application scans where parameters are the same, but I will need the three scans before the permit can be written.

Feel free to call if you have any questions.

Sincerely,
Dawn

Dawn Jeffries
VA Dept. of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801
540-574-7898
dawn.jeffries@deq.virginia.gov

From: Dameron, Jason (DEQ)
Sent: Tuesday, June 02, 2015 4:07 PM
To: Jeffries, Dawn (DEQ)
Subject: FW: Reissuance of VPDES Permit No. VA0024732, Massanutten PSC STP, Rockingham County

Here is the latest from Massanutten.

From: Don Smiley [<mailto:DESmiley@uiwater.com>]
Sent: Tuesday, May 26, 2015 3:24 PM
To: Dameron, Jason (DEQ)
Subject: Reissuance of VPDES Permit No. VA0024732, Massanutten PSC STP, Rockingham County

Jason,

Part A. - Item A.4. The type of collection system listed as separate, and the ownership listed as private.

Part C. – Original signature provided.

Part D. – Requesting waiver for the expanded effluent testing.

Part E. – Toxicity data provided.

Sewage Sludge Application

Not requesting to keep North River WWTP in sewer permit.

Application Addendum

Item 5. – Removed 2.25 flow tier from addendum.

I will deliver 3 copies of the original signature on part C of application to your office.

Utilities Inc

Don Smiley

Area Manager

Phone 540 289 7088

Fax 540 289-6173

Cell 301 536 8176

desmiley@uiwater.com



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

4411 Early Road, P.O. Box 3000, Harrisonburg, Virginia 22801

(540) 574-7800 Fax (540) 574-7878

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

May 14, 2015 – VIA EMAIL

Mr. Don Smiley
Massanutten Public Service Corporation
P.O. Box 51
Elkton, VA 22827

Re: VPDES Permit No. VA0024732, Massanutten Public Service Corporation STP, Rockingham County

Dear Mr. Smiley:

Your VPDES permit reissuance application is considered incomplete. Please provide the following information to complete the application and allow the permit processing to continue.

FORM 2A

Part A. - Item A.4. The type of collection system should be listed as separate, and the ownership should be listed as private.

Part C. - Please provide an original signature.

Part D. - For the expanded effluent testing data, at least 3 pollutants scans are required. The application included data for the majority of these parameters in the form of Attachment B. Please provide data for the remaining 2 pollutant scans or request a waiver and provide the justification.

Part E. - Toxicity data was not provided as part of the application. Please provide the requested data or request a waiver and provide the justification.

Sewage Sludge Application

Part I.1. - The previous permit application included the option of transporting sewage sludge to the North River WWTP. Please complete this section if you would still like for that option to be included in the permit.

Part I.6.c. - Please provide a copy of any information you provide to the receiving facility to comply with the notice and necessary information requirement.

Application Addendum

Item 5. – The previous permit contains flow tiers of 0.95 MGD, 1.5 MGD, and 2.0 MGD. As in the previous application addendum, a flow tier of 2.25 MGD has also been requested. The flow tier request was removed from the previous application due to a lack of stream model associated with that tier. Massanutten previously provided a regional stream model for the current flow tiers. If the flow tier of 2.25 MGD is still warranted, please provide a stream model for the additional flow tier, or indicate how you wish to proceed with the additional tier.

According to your current permit, your complete application for reissuance is due at least 180 days before the permit expires, or by *June 3, 2015*. You are hereby requested to make the necessary corrections and/or provide additional information prior to this date in order to eliminate the deficiencies outlined above. Processing of your VPDES Permit application will not begin until these deficiencies are addressed. In the event that your VPDES permit expires as a result of your failure to reapply in a timely manner, your facility will be considered as “discharging without a valid VPDES permit”, which is a violation of the State Water Control Law and state regulations.

Please submit a corrected original application and three copies to this office and one copy to the Virginia Department of Health, Office of Water Programs, Environmental Engineering Field Office, 131 Walker Street, Lexington, Virginia 24450-2431. The Department of Health may be providing additional comments for your consideration. Please contact them before proceeding.

If you have any questions concerning this letter or if I may be of further assistance, please contact me (540) 574-7824.

Sincerely,

Jason R. Dameron
Water Permit Writer

Enclosure

cc: VDH-Lexington
Permit Processing File

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Massanutten Public Service Corp
Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.
2. **Is this facility located within city or town boundaries?** ☐ YES ☒ NO
Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.
3. **What is the tax map parcel number for the land where this facility is located?** 730-36-128-A-4D
4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** None
5. **ALL FACILITIES: What is the design average flow of this facility?** 1.5 MGD
Industrial facilities: What is the maximum 30-day avg. production level (include units)? n/a

In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? ☒ YES ☐ NO

If "Yes", please specify the other flow tiers (in MGD) or production levels: 0.95, 1.5, 2.0, MGD

Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

6. **Nature of operations generating wastewater:**
Domestic Wastewater

100 % of flow from domestic connections/sources

Number of private residences to be served by the wastewater treatment facilities: ☐ 0 ☐ 1-49 ☒ 50 or more

0 % of flow from non-domestic connections/sources

7. **Mode of discharge:** ☒ Continuous ☐ Intermittent ☐ Seasonal
Describe frequency and duration of intermittent or seasonal discharges:

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**

- ☒ Permanent stream, never dry
- ☐ Intermittent stream, usually flowing, sometimes dry
- ☐ Ephemeral stream, wet-weather flow, often dry
- ☐ Effluent-dependent stream, usually or always dry
- ☐ Lake or pond at or below the discharge point
- ☐ Other: _____

9. **Consent to receive electronic mail**

The Department of Environmental Quality (DEQ) may deliver permits, certifications and plan approvals to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check *only one* of the following to consent to or decline receipt of electronic mail from DEQ as follows:

- ☒ Applicant or permittee agrees to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ.

Please provide email: desmiley@uiwater.com tsharp@uiwater.com ambenton@uiwater.com

- ☐ Applicant or permittee declines to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity.

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Massanutten Public Service Corporation VA 0024732

BASIC APPLICATION INFORMATION**PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:**

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.Facility name Massanutten Public Service CorporationMailing Address PO Box 51 Elkton Virginia 22827Contact person Don SmileyTitle Area ManagerTelephone number (540) 289-7088Facility Address 1550 resort Drive Mcgaheysville Virginia 22840

(not P.O. Box) _____

A.2. Applicant Information. If the applicant is different from the above, provide the following:Applicant name Same as above

Mailing Address _____

Contact person Don SmileyTitle Area ManagerTelephone number (540) 289-7088

Is the applicant the owner or operator (or both) of the treatment works?

☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☒ facility ☒ applicant**A.3. Existing Environmental Permits.** Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).NPDES 0024732

PSD _____

UIC _____

Other VAN 010039

RCRA _____

Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name

Population Served

Type of Collection System

Ownership

Massanutten Resort5235SeparatePrivateTotal population served 5235

FACILITY NAME AND PERMIT NUMBER:

Massanutten Public Service Corporation VA 0024732

Form Approved 1/14/99
OMB Number 2040-0086

A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 1.5
- mgd

	<u>Two Years Ago</u>	<u>Last Year</u>	<u>This Year</u>
b. Annual average daily flow rate	<u>.654</u>	<u>.798</u>	<u>.893</u> mgd
c. Maximum daily flow rate	<u>1.70</u>	<u>1.44</u>	<u>1.38</u> mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

<input checked="" type="checkbox"/> Separate sanitary sewer	<u>100</u> %
<input type="checkbox"/> Combined storm and sanitary sewer	<u>0</u> %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?

☐ Yes ☒ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent	<u>1</u>
ii. Discharges of untreated or partially treated effluent	<u>0</u>
iii. Combined sewer overflow points	<u>0</u>
iv. Constructed emergency overflows (prior to the headworks)	<u>0</u>
v. Other <u>002 emergency discharge never used</u>	<u>1</u>

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?

☐ Yes ☒ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

- c. Does the treatment works land-apply treated wastewater?

☐ Yes ☒ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?

☐ Yes ☒ No

FACILITY NAME AND PERMIT NUMBER:

Massanutten Public Service Corporation VA 0024732

Form Approved 1/14/99
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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

N/A

If transport is by a party other than the applicant, provide:

Transporter name: N/A

Mailing Address:

Contact person: N/A

Title:

Telephone number:

For each treatment works that receives this discharge, provide the following:

Name: N/A

Mailing Address:

Contact person: N/A

Title:

Telephone number:

If known, provide the NPDES permit number of the treatment works that receives this discharge.

Provide the average daily flow rate from the treatment works into the receiving facility.

NA mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

Yes



No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method:

Is disposal through this method

continuous or

intermittent?

FACILITY NAME AND PERMIT NUMBER:

Massanutten Public Service Corporation VA 0024732

Form Approved 1/14/99
OMB Number 2040-0086

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001
- b. Location Mcgaheysville 22840
(City or town, if applicable) (Zip Code)
Rockingham Virginia
(County) (State)
38.64 18.43 N 78 42 43.071 W
(Latitude) (Longitude)
- c. Distance from shore (if applicable) 0 ft.
- d. Depth below surface (if applicable) 0 ft.
- e. Average daily flow rate .79 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? Yes ☒ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: _____
- Average duration of each discharge: _____
- Average flow per discharge: _____ mgd
- Months in which discharge occurs: _____
- g. Is outfall equipped with a diffuser? Yes ☒ No

A.10. Description of Receiving Waters.

- a. Name of receiving water Quail Run
- b. Name of watershed (if known) Shenandoah river/Potomac
- United States Soil Conservation Service 14-digit watershed code (if known): 020700050804
- c. Name of State Management/River Basin (if known): Shenandoah
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): HUC PS35
- d. Critical low flow of receiving stream (if applicable):
acute 0.02 MGD cfs chronic 0.03 MGD cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): _____ mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Massanutten Public Service Corporation VA 0024732

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary
☒ Advanced ☒ Other. Describe: Nitrogen removal

b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal 96 %
 Design SS removal 88 %
 Design P removal 71 %
 Design N removal 80 %
 Other _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Ultra Violet Light Disinfection

If disinfection is by chlorination, is dechlorination used for this outfall?

☐ Yes ☒ No

d. Does the treatment plant have post aeration?

☒ Yes ☐ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.37	s.u.			
pH (Maximum)	7.66	s.u.			
Flow Rate	1.44	MGD	.798	MGD	365
Temperature (Winter)	20.7	Deg C	11.56	Deg C	182
Temperature (Summer)	24.5	Deg C	19.85	Deg C	183

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	5	mg/l	.40	mg/l	157	5210 B-2001	2mg/l
	CBOD-5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FECAL COLIFORM		3	MPN/100m	.21	MPN/100	156	colilert MPN	1 MPN/100mg/l
TOTAL SUSPENDED SOLIDS (TSS)		2	mg/l	.16	mg/l	12	2540 D-1997	1 mg/l

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Massanutten Public Service Corporation VA 0024732

Form Approved 1/14/99
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).**All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).**B.1. Inflow and Infiltration.** Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.80,636 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

Continue I&I investigation projects consisting of CCTV, CIP lining, lateral and manhole rehabilitation**B.2. Topographic Map.** Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- The area surrounding the treatment plant, including all unit processes.
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.**B.4. Operation/Maintenance Performed by Contractor(s).**Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: N/A

Mailing Address: _____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

001

- Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

Yes ☒ No

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Massanutten Public Service Corporation VA 0024732

- c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

N/A

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM / DD / YYYY	Actual Completion MM / DD / YYYY
- Begin construction	<u>09 / 14 / 2007</u>	<u>09 / 14 / 2007</u>
- End construction	<u>02 / 15 / 2008</u>	<u>02 / 15 / 2008</u>
- Begin discharge	<u> / / </u>	<u> / / </u>
- Attain operational level	<u> / / </u>	<u> / / </u>

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained?
- ☐
- Yes
- ☐
- No

Describe briefly: Sludge holding tank is on hold. Improvemnet is not State
Federal or Local requirement**B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).**

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	.10	MG/L	<QL	MG/L	6	EPA350.1.Rev.2	.10
CHLORINE (TOTAL RESIDUAL, TRC)	N/A	N/A	N/A	N/A	N/A	uv disinfection	N/A
DISSOLVED OXYGEN	11.23	MG/L	10.69	MG/L	8	4500-O G	.10
TOTAL KJELDAHL NITROGEN (TKN)	1.7	MG/L	.68	MG/L	6	4500NH3D97	.10
NITRATE PLUS NITRITE NITROGEN	16.7	MG/L	8.68	MG/L	6	EPA 300.0,rev2.1	.50
OIL and GREASE	<QL	MG/L	<QL	MG/L	3	1664A	5.00
PHOSPHORUS (Total)	2.29	MG/L	1.27	MG/L	6	4500-P BE-1999	.25
TOTAL DISSOLVED SOLIDS (TDS)	476	MG/L	394	MG/L	8	2540C97	10
OTHER							

END OF PART B.**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

Massanutten Public Service Corporation VA 0024732

Form Approved 1/14/99
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART C. CERTIFICATION**

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:



Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)☐ Part E (Toxicity Testing: Biomonitoring Data)☐ Part F (Industrial User Discharges and RCRA/PCRA Wastes)☐ Part G (Combined Sewer Systems)RECEIVED
DEQ - Valley

MAY 29 2015

FILE: _____

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Don Smiley Area ManagerSignature Don SmileyTelephone number (540) 289-7088Date signed 05/01/2015

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Massanutten Public Service Corporation VA 0024732

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: request waiver (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY											
ARSENIC											
BERYLLIUM											
CADMIUM											
CHROMIUM											
COPPER											
LEAD											
MERCURY											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
ZINC											
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS CaCO ₃)											
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

FACILITY NAME AND PERMIT NUMBER:

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS:											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
CLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYL VINYL ETHER											
CHLOROFORM											
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE											
1,2-DICHLOROETHANE											
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

FACILITY NAME AND PERMIT NUMBER:

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE											
1,1,2-TRICHLOROETHANE											
TRICHLORETHYLENE											
VINYL CHLORIDE											

Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.

--	--	--	--	--	--	--	--	--	--	--	--

ACID-EXTRACTABLE COMPOUNDS

P-CHLORO-M-CRESOL											
2-CHLOROPHENOL											
2,4-DICHLOROPHENOL											
2,4-DIMETHYLPHENOL											
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL											
2-NITROPHENOL											
4-NITROPHENOL											
PENTACHLOROPHENOL											
PHENOL											
2,4,6-TRICHLOROPHENOL											

Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.

--	--	--	--	--	--	--	--	--	--	--	--

BASE-NEUTRAL COMPOUNDS.

ACENAPHTHENE											
ACENAPHTHYLENE											
ANTHRACENE											
BENZIDINE											
BENZO(A)ANTHRACENE											
BENZO(A)PYRENE											

FACILITY NAME AND PERMIT NUMBER:

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 Form Approved 1/14/99
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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE											
BENZO(GH)PERYLENE											
BENZO(K)FLUORANTHENE											
BIS (2-CHLOROETHOXY) METHANE											
BIS (2-CHLOROETHYL)-ETHER											
BIS (2-CHLOROISO-PROPYL) ETHER											
BIS (2-ETHYLHEXYL) PHTHALATE											
4-BROMOPHENYL PHENYL ETHER											
BUTYL BENZYL PHTHALATE											
2-CHLORONAPHTHALENE											
4-CHLORPHENYL PHENYL ETHER											
CHRYSENE											
DI-N-BUTYL PHTHALATE											
DI-N-OCTYL PHTHALATE											
DIBENZO(A,H) ANTHRACENE											
1,2-DICHLOROBENZENE											
1,3-DICHLOROBENZENE											
1,4-DICHLOROBENZENE											
3,3-DICHLOROBENZIDINE											
DIETHYL PHTHALATE											
DIMETHYL PHTHALATE											
2,4-DINITROTOLUENE											
2,6-DINITROTOLUENE											
1,2-DIPHENYLHYDRAZINE											

FACILITY NAME AND PERMIT NUMBER:

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OMB Number 2040-0086

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE											
FLUORENE											
HEXACHLOROBENZENE											
HEXACHLOROBUTADIENE											
HEXACHLOROCYCLO-PENTADIENE											
HEXACHLOROETHANE											
INDENO(1,2,3-CD)PYRENE											
ISOPHORONE											
NAPHTHALENE											
NITROBENZENE											
N-NITROSODI-N-PROPYLAMINE											
N-NITROSODI- METHYLAMINE											
N-NITROSODI-PHENYLAMINE											
PHENANTHRENE											
PYRENE											
1,2,4-TRICHLOROBENZENE											

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

END OF PART D.**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
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Massanutten Public Service Corporation VA 0024732

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

____ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: _____ Test number: _____ Test number: _____

a. Test information.

Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			

b. Give toxicity test methods followed.

Manual title			
Edition number and year of publication			
Page number(s)			

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite			
Grab			

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination			

FACILITY NAME AND PERMIT NUMBER:

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Test number: _____

Test number: _____

Test number: _____

e. Describe the point in the treatment process at which the sample was collected.

Sample was collected:

f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.

Chronic toxicity

Acute toxicity

g. Provide the type of test performed.

Static

Static-renewal

Flow-through

h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.

Laboratory water

Receiving water

i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.

Fresh water

Salt water

j. Give the percentage effluent used for all concentrations in the test series.

k. Parameters measured during the test. (State whether parameter meets test method specifications)

pH

Salinity

Temperature

Ammonia

Dissolved oxygen

I. Test Results.

Acute:

Percent survival in 100%
effluent

%

%

%

LC₅₀

95% C.I.

%

%

%

Control percent survival

%

%

%

Other (describe)

FACILITY NAME AND PERMIT NUMBER:

Massanutten Public Service Corporation VA 0024732

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Chronic:

NOEC	%	%	%
IC ₂₅	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

Yes No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: _____ (MM/DD/YYYY)

Summary of results: (see instructions)

_____**END OF PART E.****REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.**

VPDES Sewage Sludge Permit Application for Permit Reissuance

Instructions

WHO MUST SUBMIT THE APPLICATION - All facilities with a current VPDES Permit that authorizes the discharge of treated sewage wastewater that are applying for reissuance must complete and submit this application.

Part 1 is general information to be provided by all facilities.

Part 2 must be completed by all facilities that generate Class A or Class B biosolids that are land applied.

Part 3 must be completed by all facilities that land apply Class B biosolids.

Part 1 - Sludge Disposal Management (To be completed by all facilities)

Facility Name: Massanullen Public Service Corporation

VPDES Permit No: VA 0024732

1. Shipment Off Site for Treatment or Blending

Is sewage sludge from your facility sent to another facility that provides treatment or blending?

☐ Yes ☒ No

If you send sewage sludge to more than one facility, attach additional sheets as necessary.

Shipment off site is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Receiving Facility Name: _____

b. Receiving Facility VPDES Permit No. _____

c. Include an acceptance letter from the Receiving Facility.

d. Receiving Facility's ultimate disposal method for sewage sludge _____

2. Disposal in a Municipal Solid Waste Landfill

Is sewage sludge from your facility placed in a municipal solid waste landfill?

☐ Yes ☒ No

If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

Landfilling is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Landfill Name: _____

b. Landfill Permit No. _____

c. Include an acceptance letter from the landfill.

3. Incineration

Is sewage sludge from your facility fired in a sewage sludge incinerator?

☐ Yes ☒ No

Incineration is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?

☐ Yes ☐ No

If yes, provide the Air Registration No. _____

If no, complete items b - d for each incinerator that you do not own or operate.

b. Facility Name: _____

c. Air Registration No. _____

d. Include an acceptance letter from the incinerator.

4. Class A Biosolids

Do you produce Class A biosolids for land application or distribution and marketing? If yes, complete Part 2.

☐ Yes ☒ No

Are Class A biosolids from your facility land applied in bulk?

☐ Yes ☐ No

Do you sell or give away Class A biosolids in a bag or other container for application to the land? If yes, provide the

☐ Yes ☐ No

VIDACS certification number? _____

5. Class B Biosolids

Do you produce Class B biosolids? If yes, complete Part 2.

☒ Yes ☐ No

Are Class B biosolids from your facility land applied land applied under the authorization of this VPDES Permit? If yes, complete Part 3.

☐ Yes ☒ No

6. Land Application Under a Separate Permit

Are biosolids from your facility land applied under the authorization of a permit other than your VPDES Permit?

☒ Yes ☐ No

Biosolids are land applied under the authorization of a ☒ VPA permit ☐ Another VPDES Permit ☐ Out of State

Complete items a - c for each VPA permit authorized to land apply biosolids from your facility.

a. Permittee Name

Houff's Feed & Fertilizer Co., Inc.

b. Permit No.

VPA01566, VPA01580,

VPA01581

c. Include copy of any information you provide to the Receiving VPDES or VPA Permittee to comply with the "notice and necessary information" requirement of 9VAC25-31-530 F.

VPDES Sewage Sludge Permit Application for Permit Reissuance

Part 2 – Biosolids Characterization (To be completed by all facilities that generate biosolids that are land applied.)

1. Have there been changes to sludge treatment processes or storage facilities since the previous permit issuance/reissuance? ☐ Yes ☒ No
2. Do the biosolids generated under this permit that will be land applied meet one of the Class A pathogen requirements in 9VAC25-31-710 A 3 through A 8 or Class B pathogen requirements in 9VAC25-31-710 B 1 through B 4? ☒ Yes ☐ No
Identify the pathogen reduction option utilized to demonstrate compliance with the pathogen reductions requirements and provide the data that demonstrate compliance with the applicable alternative. Fecal Coliform Monitoring
3. Do the biosolids generated under this permit that will be land applied meet one of the vector attraction reduction requirements in 9VAC25-31-720 B 1 through B 10? ☒ Yes ☐ No
Identify the vector attraction reduction option utilized to demonstrate compliance with the vector attraction reductions requirements and provide the data that demonstrate compliance with the applicable alternative. SOUR Testing
4. Do the biosolids to be land applied meet the ceiling/pollutant concentrations in 9VAC25-31-540 B? ☒ Yes ☐ No
5. Has data from the most recent 3 samples for pH (S.U.), Percent Solids (%), Ammonium Nitrogen (mg/kg), Nitrate Nitrogen (mg/kg), Total Kjeldahl Nitrogen (mg/kg), Total Phosphorus (mg/kg), Total Potassium (mg/kg), Alkalinity as CaCO₃ (mg/kg), Arsenic (mg/kg), Cadmium (mg/kg), Copper (mg/kg), Lead (mg/kg), Mercury (mg/kg), Nickel (mg/kg), Selenium (mg/kg), Zinc (mg/kg) been submitted to DEQ? The samples shall be no more than 4½ years old and each sampling date shall be at least 1 month apart. ☒ Yes ☐ No
If no, provide the data with this application.

Part 3 – Land Application of Class B Biosolids (To be completed by all facilities that land apply Class B biosolids.)

1. Provide to DEQ and to each locality in which biosolids are to be land applied, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with 9VAC25-31-100 P 9.
2. For each site, provide a properly completed landowner agreement for each landowner, using the most current Land Application Agreement - Biosolids Form (VPDES Sewage Sludge Permit Application Form – Attachment to Section C).
3. Are any new land application fields proposed at this reissuance? ☐ Yes ☐ No
If yes, contact the DEQ Regional Office for additional submittal requirements.
4. For the currently permitted land application fields, are the previously submitted site booklets, maps and acreage accurate. ☐ Yes ☐ No
If no, contact the DEQ Regional Office for additional submittal requirements.
5. Does the facility's Biosolids Management Plan on file with DEQ include the following minimum information? ☐ Yes ☐ No
 - a. An odor control plan that addresses the abatement of odors resulting from the storage and/or land application of biosolids.
 - b. A description of the transport vehicles to be used.
 - c. Procedures for biosolids offloading at the land application site including spill prevention, cleanup (including vehicle cleaning), field reclamation, and emergency notification and cleanup measures.
 - d. A description of the land application equipment including procedures for calibrating equipment to ensure uniform distribution and appropriate loading rates.
 - e. Procedures used to ensure that land application activities address notification requirements, signage requirements, slope restrictions, operation limitations during periods of inclement weather, soil pH requirements, buffer zone requirements, and site restrictions.
 - f. Any other information necessary to ensure compliance with the requirements of the Biosolids Program of the VPDES Permit Regulation (9VAC25-31-420 through 720).

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title

Don Smiley AREA MANAGER

Signature

Don Smiley

Telephone number / Email

(540) 289-7088 / Desmiley@viwater.com

Date signed

4-21-2015

(Based on a review of this information, it may be necessary to submit additional information to meet other legal or technical review requirements.)

NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F – G or 9VAC25-32-313.G – H.

Part I – To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Massanutten Public Service Corporation Permit Number: VA0024732

A. Metals Limitations

Sample Date(s): 2-11-2015 Number of Samples: 1

Parameters	Concentrations		PC/CPLR Limitations	Ceiling Limitations ⁽²⁾
	Monthly Average (mg/kg) ⁽¹⁾	Maximum (mg/kg) ⁽¹⁾	Monthly Average (mg/kg) ⁽¹⁾	Maximum (mg/kg) ⁽¹⁾
Total Arsenic	4.0	4.0	41	75
Total Cadmium	<2.0	<2.0	39	85
Total Copper	506	506	1,500	4,300
Total Lead	9	9	300	840
Total Mercury	.8	.8	17	57
Total Molybdenum	<5	<5	NL ⁽³⁾	75
Total Nickel	18	18	420	420
Total Selenium	6	6	100	100
Total Zinc	724	724	2,800	7,500

(1) Values to be reported on a dry weight basis.

(2) Sludge may not be land applied if any pollutant exceeds these values.

(3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B or 9VAC25-32-675.B by:

☒ Alternative 1: Fecal coliform testing -geometric mean of 7 samples

☒ ~~Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:~~

☒ ~~Option 1 - Aerobic digestion~~

☐ Option 2 - Air drying beds

☐ Option 3 - Anaerobic digestion

☐ Option 4 - Composting

☐ Option 5 - Lime Stabilization

☐ Other: _____

NOTICE AND NECESSARY INFORMATION

C. Vector Attraction Reduction (VAR)

☒ VAR requirements for Class B biosolids were achieved in accordance with 9VAC25-31-720.B.1 – 8 or 9VAC25-32-685.B.1 – 8 by:

- ☒ Option 1: ~~≥ 38% volatile solids reduction~~
- ☐ Option 2: Anaerobic 40 day bench test
- ☐ Option 3: Aerobic 30 day bench test
- ☒ Option 4: Specific Oxygen Uptake Rate (SOUR) test
- ☐ Option 5: Aerobic process, 14 days @ 40°C (45°C)
- ☐ Option 6: Alkaline stabilization
- ☐ Option 7: Dry to ≥ 75% T.S. w/no unstabilized 1° sludges
- ☐ Option 8: Dry to ≥ 90% T.S.

OR

☐ VAR requirements for Class B biosolids were not achieved in accordance with 9VAC25-31-720.B.1 – 8 or 9VAC25-32-685.B.1 – 8; therefore, Option 9 (Injection) or Option 10 (Incorporation) is required at the land application site.

D. Nutrient Concentrations

Sample Date(s): 2-11-2015

Number of Samples: 1

Parameters	Concentrations	
	Monthly Average (mg/kg) ⁽¹⁾	Maximum (mg/kg) ⁽¹⁾
Total Nitrogen as N	4960 TKN 76,500	4960 76,500
Total Phosphorus as P	1.59 15,900	1.59 15,900

*Values to be reported on a dry weight basis.

E. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Don Smiley AREA MANAGER

Signature Don Smiley Date Signed 6-16-2015

Telephone number 540 289 7088

Odor Control Plan - Generator

Facility Name: MPSC
Address: 1550 Resort Drive
City State: McGaheysville, VA

VPDES/NPDES Permit Number:
VA0024732

Contact Name: ✓ Don Smiley
Phone Number: ✓ 540 289 7088
Email address: ✓ desmiley@uiwatra.com

"Malodor" means an unusually strong or offensive odor associated with biosolids or sewage sludge as distinguished from odors commonly associated with biosolids or sewage sludge.

Answer all 4 questions and check all methods that apply OR add alternative methods.

1) Identify methods used to minimize odor during production of biosolids:

Vector Attraction Reduction Method:

- ☐ 38% VSS solids reduction – Treatment minimizes odors through anaerobic digestion to produce Class B biosolids. Digestion detention times and digester temperatures along with volatile solids reduction are monitored to ensure that State and Federal standards are achieved.
- ☐ Lime Addition: Treatment includes adding sufficient lime to the biosolids to raise the pH to > 12 after two hours and then testing again after an additional 22 hours for a pH greater than 11.5. Lime feed rates and biosolids pH data will be recorded and checked.

Additional procedures (if applicable):

- ☐ 15 day minimum detention time and a minimum of 95 degrees F in anaerobic digestion will be maintained
- ☒ SOUR testing of biosolids
- ☒ Fecal coliform testing of biosolids

2) Identify methods used to identify malodorous biosolids at the generating facility:

- ☐ Wastewater treatment facility staff will periodically perform visual as well as odor observations of the biosolids being discharged from the centrifuge or pug mill to ensure that nothing out of the ordinary is occurring during processing operations. If the solids appear to be off color or have unusual odors, these biosolids will be separated from the normal biosolids or sent to landfill.
- ☐ Volatile solids testing and tracking
- ☒ Wastewater treatment facility staff will periodically observe loading operations to check odor conditions of biosolids

3) Identify methods used to identify and abate malodor after delivery to a land application site (before land application):

- ☐ The land application contractor's personnel will perform a visual as well as odor observation biosolids delivered to the land application sites. They will determine if any of the individual loads arriving on-site appear to be more odorous and darker in color than usual. If malodor of the biosolids is present, the contractor will confer with wastewater treatment plant staff and can remove the biosolids and return those loads to the wastewater treatment plant for further treatment or transport to a landfill
- ☐ Confer with land applicator and utilize a remote land application site
- ☐ Check pH levels on suspect lime stabilized biosolids
- ☒ Contract land applicator will use methods identified in land applicator's odor control plan

4) Identify methods used to abate malodor after land application:

- ☐ Incorporate biosolids into the soil
- ☐ Use a deodorizer
- ☒ Contract land applicator will use methods identified in land applicator's odor control plan

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in Daily News Record in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed: Massanutten Public Service/Utilities INC

Owner: Don Smiley

Agent/Department Address: 2335 Sanders Rd

Northbrook IL 60062

Agent's Telephone No.: 847 498 6440

Printed Name: Don Smiley

Authorizing Agent - Signature: Don Smiley

Date: 4-20-2015

Facility Name: Massanutten Public Service Corp

VPDES Permit No. VA 0024732

**VPDES/VPA Permit Billing Information Form
for Annual Maintenance Fee**

Facility Name: Massanutten Public Service Corp

Permit Number: VA 0024732

Owner Name: Don Smiley

Owner Address: 1550 Resort Dr

Mcgaheysville VA

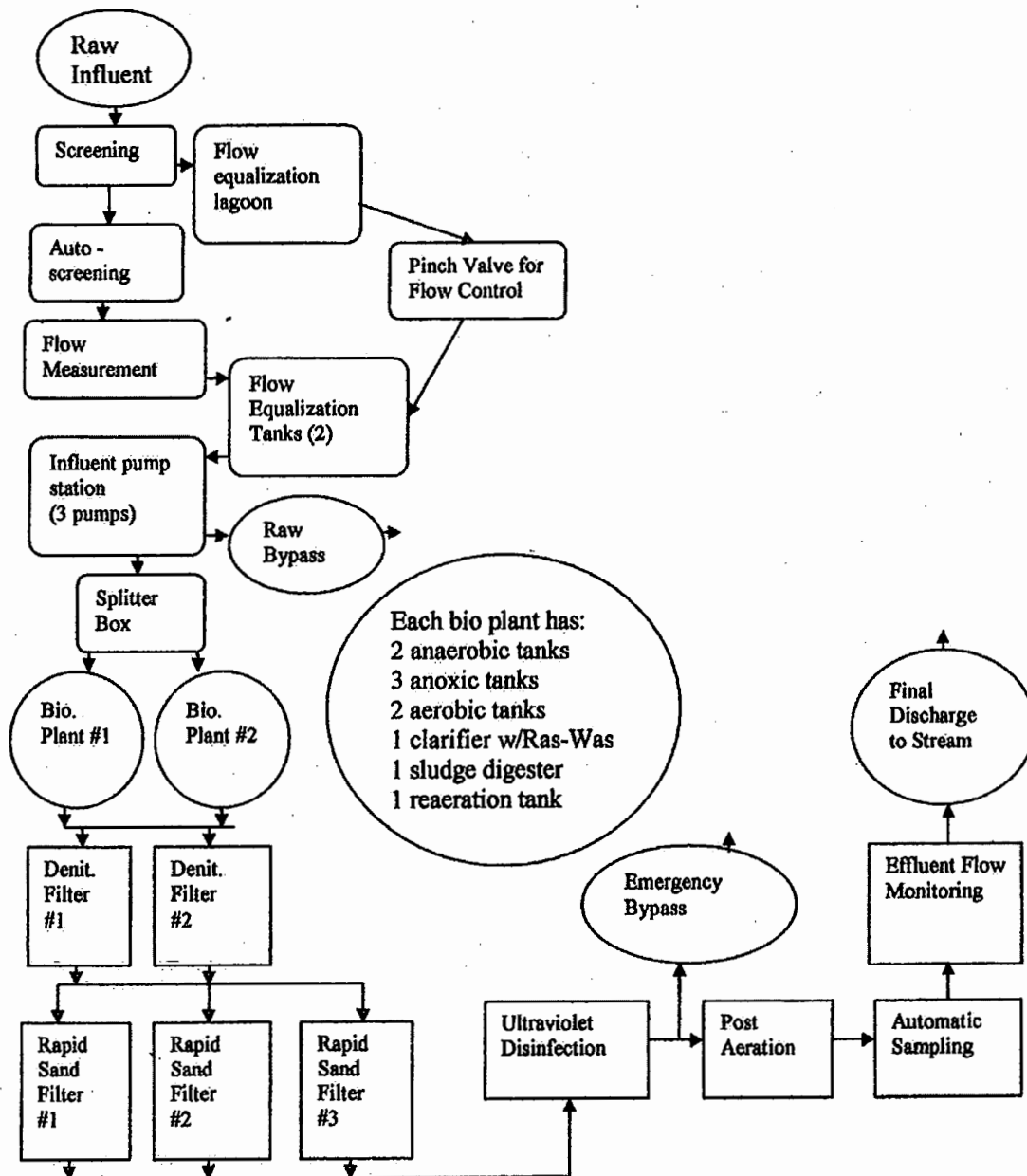
22840

Billing Contact Name: Don Smiley

Title: Area Manager

Phone Number: 540 289 7088

E-Mail Address: desmiley@uiwater.com



12/09/2011

COMMONWEALTH OF VIRGINIA - DEPARTMENT OF ENVIRONMENTAL QUALITY
GENERAL PERMIT FOR TOTAL NITROGEN AND TOTAL PHOSPHORUS DISCHARGES AND NUTRIENT TRADING IN THE CHESAPEAKE BAY WATERSHED IN VIRGINIA
DISCHARGE MONITORING REPORT (DMR)

NAME: **Missionville Public Service, STP**
 ADDRESS: **PO Box 51**
Edison VA **22827**

FACILITY LOCATION: **1590 Resort Dr.**

VAN010039			500				
PERMIT NUMBER			OUTFALL NUMBER				
MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	14	01	01		14	12	31

Department of Environmental Quality
 Valley Regional Office
 4411 Early Road
 P.O. Box 3000
 Harrisonburg VA 22801

NOTE: READ PERMIT ATTACHED DISCHARGE MONITORING REPORT (DMR) FOR ADDITIONAL INFORMATION

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
792 NITROGEN, TOTAL (AS N) (CALENDAR YEAR)	REPORTED	*****	25338	LB/YR	*****	*****	*****		0	1/YR	CALC
	PERMIT REQUIREMENT	*****	18273		*****	*****	*****			1/YR	CALC
794 PHOSPHORUS, TOTAL (AS P) (CALENDAR YEAR)	REPORTED	*****	5820	LB/YR	*****	*****	*****		0	1/YR	CALC
	PERMIT REQUIREMENT	*****	1371		*****	*****	*****			1/YR	CALC

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS:

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (MG)	TOTAL BOGS (K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE			
	0	0	0	KEITH F. SAMSON	<i>Keith F. Samson</i>	1965 005517	13	01	09	
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY OBTAIN AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INSIGHT OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.				TYPED OR PRINTED NAME		SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE				
				KEITH F. SAMSON	<i>Keith F. Samson</i>	540-289-9922	DATE			
				TYPED OR PRINTED NAME		SIGNATURE	YEAR MO. DAY			

FACILITY NAME: Massanutten Public Service Corporation STP
 ADDRESS: P.O. Box 51
 Elkton, VA 22827

Permit No. VA0024732
 Attachment A
 Page 1 of 1

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
PESTICIDES/PCBS						
333-41-5	Diazinon	(3)	(4)	.27	G or C	1/5 YR
ACID EXTRACTABLES ⁽⁵⁾						
104-40-51	Nonylphenol	(3)	(4)	ND	G or C	1/5 YR

Don Smiley AREA MANAGER

Name of Principal Exec. Officer or Authorized Agent/Title

Don Smiley

Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

Footnotes to Water Quality Monitoring Attachment A

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G - Grab - An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C - Composite - An 8-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) Any approved method presented in 40 CFR Part 136.
 (4) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
 (5) Testing for phenols requires continuous extraction.

FACILITY NAME: Massanutten Public Service Corporation STP
 ADDRESS: P.O. Box 51
 Elkton, VA 22857

Permit No. VA0024732
 Attachment B
 Page 1 of 4

DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER QUALITY MONITORING

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	(3)	660	ND	G or C	1/5 YR
7440-38-2	Arsenic, dissolved	(3)	93	ND	G or C	1/5 YR
7440-43-9	Cadmium, dissolved	(3)	13	ND	G or C	1/5 YR
16065-83-1	Chromium III, dissolved ⁽³⁾	(3)	87	ND	G or C	1/5 YR
18540-29-9	Chromium VI, dissolved ⁽³⁾	(3)	6.6	ND	G or C	1/5 YR
7440-50-8	Copper, dissolved	(3)	11	.0124	G or C	1/5 YR
7439-92-1	Lead, dissolved	(3)	23	ND	G or C	1/5 YR
7439-97-6	Mercury, dissolved	(3)	1.0	ND	G or C	1/5 YR
7440-02-0	Nickel, dissolved	(3)	24	ND	G or C	1/5 YR
7782-49-7	Selenium, total recoverable	(3)	3.1	ND	G or C	1/5 YR
7440-22-4	Silver, dissolved	(3)	5.4	ND	G or C	1/5 YR
7440-28-0	Thallium, dissolved	(4)	(5)	ND	G or C	1/5 YR
7440-66-6	Zinc, dissolved	(3)	93	.0434	G or C	1/5 YR
PESTICIDES/PCBS						
309-00-2	Aldrin	608	0.05	ND	G or C	1/5 YR
57-74-9	Chlordane	608	0.2	ND	G or C	1/5 YR
2921-88-2	Chlorpyrifos	627	(5)	ND	G or C	1/5 YR
72-54-8	DDD	608	0.1	ND	G or C	1/5 YR
72-55-9	DDH	608	0.1	ND	G or C	1/5 YR
50-29-3	DDT	608	0.1	ND	G or C	1/5 YR
8065-48-3	Demeton	(4)	(5)	ND	G or C	1/5 YR
333-41-5	Diazinon	(4)	(5)	.27	G or C	1/5 YR
60-57-1	Dieldrin	608	0.1	ND	G or C	1/5 YR
959-98-8	Alpha-Endosulfan	608	0.1	ND	G or C	1/5 YR
33215-65-9	Beta-Endosulfan	608	0.1	ND	G or C	1/5 YR
1051-07-8	Endosulfan Sulfate	608	0.1	ND	G or C	1/5 YR
72-20-8	Endrin	608	0.1	ND	G or C	1/5 YR
7471-93-4	Endrin Aldehyde	(4)	(5)	ND	G or C	1/5 YR
86-50-0	Guthion	622	(5)	ND	G or C	1/5 YR
76-44-8	Heptachlor	608	0.05	ND	G or C	1/5 YR
1024-57-3	Heptachlor Epoxide	(4)	(5)	ND	G or C	1/5 YR
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	(5)	ND	G or C	1/5 YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608	(5)	ND	G or C	1/5 YR

FACILITY NAME: Massanutten Public Service Corporation SFP
 ADDRESS: P.O. Box 51
 Falmouth, VA 22857

Permit No. VA0024732
 Attachment B
 Page 2 of 4

DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER QUALITY MONITORING

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽²⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
58-89-9	Hexachlorocyclohexane Gamma-BHC (synonym = Lindane)	608	(5)	ND	G or C	1/5 YR
143-50-0	Keponc	(9)	(5)	ND	G or C	1/5 YR
121-73-3	Malathion	(4)	(5)	ND	G or C	1/5 YR
72-43-5	Methoxychlor	(4)	(5)	ND	G or C	1/5 YR
2485-85-5	Mirex	(4)	(5)	ND	G or C	1/5 YR
56-38-2	Parathion	(4)	(5)	ND	G or C	1/5 YR
1336-36-3	PCB Total	608	7.0	ND	G or C	1/5 YR
8001-35-2	Toxaphene	608	5.0	ND	G or C	1/5 YR
BASE NEUTRAL EXTRACTABLES						
83-12-9	Acenaphthene	625	10.0	ND	G or C	1/5 YR
120-12-7	Anthracene	625	10.0	ND	G or C	1/5 YR
97-87-5	Benztidine	(4)	(5)	ND	G or C	1/5 YR
56-55-3	Benzo (a) anthracene	625	10.0	ND	G or C	1/5 YR
205-99-2	Benzo (b) fluoranthene	625	10.0	ND	G or C	1/5 YR
207-08-9	Benzo (k) fluoranthene	625	10.0	ND	G or C	1/5 YR
50-32-8	Benzo (a) pyrene	625	10.0	ND	G or C	1/5 YR
111-44-4	Bis 2-Chloroethyl Ether	(4)	(5)	ND	G or C	1/5 YR
108-60-1	Bis 2-Chloroisopropyl Ether	(4)	(5)	ND	G or C	1/5 YR
117-81-7	Bis-2-Ethylhexyl Phthalate	625	10.0	ND	G or C	1/5 YR
85-68-7	Butyl benzyl phthalate	625	10.0	ND	G or C	1/5 YR
91-58-7	2-Chloronaphthalene	(4)	(5)	ND	G or C	1/5 YR
218-01-9	Chrysene	625	10.0	ND	G or C	1/5 YR
53-70-3	Dibenz(a,h)anthracene	625	20.0	ND	G or C	1/5 YR
95-50-1	1,2-Dichlorobenzene	624	10.0	ND	G or C	1/5 YR
541-73-1	1,3-Dichlorobenzene	624	10.0	ND	G or C	1/5 YR
106-46-7	1,4-Dichlorobenzene	624	10.0	ND	G or C	1/5 YR
91-94-1	3,3-Dichlorobenzidine	(4)	(5)	ND	G or C	1/5 YR
84-66-2	Diethyl phthalate	625	10.0	ND	G or C	1/5 YR
131-11-3	Dimethyl phthalate	(4)	(5)	ND	G or C	1/5 YR
84-74-2	Di-n-Butyl Phthalate	625	10.0	ND	G or C	1/5 YR
121-14-2	2,4-Dinitrotoluene	625	10.0	ND	G or C	1/5 YR
122-66-7	1,2-Diphenylhydrazine	(4)	(5)	ND	G or C	1/5 YR
206-44-0	Fluoranthene	625	10.0	ND	G or C	1/5 YR

FACILITY NAME: Massanutten Public Service Corporation STP
 ADDRESS: P.O. Box 51
 Elkton, VA 22857

Permit No. VA0024732
 Attachment B
 Page 3 of 4

DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER QUALITY MONITORING

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
86-73-7	Fluorene	625	10.0	ND	G or C	1/5 YR
118-74-1	Hexachlorobenzene	(4)	(5)	ND	G or C	1/5 YR
87-68-3	Hexachlorotetradiene	(4)	(5)	ND	G or C	1/5 YR
77-47-4	Hexachlorocyclopentadiene	(4)	(5)	ND	G or C	1/5 YR
67-72-1	Hexachloroethane	(4)	(5)	ND	G or C	1/5 YR
193-39-5	Indeno(1,2,3-cd)pyrene	625	20.0	ND	G or C	1/5 YR
78-59-1	Isophorone	625	10.0	ND	G or C	1/5 YR
98-95-3	Nitrobenzene	625	10.0	ND	G or C	1/5 YR
62-75-9	N-Nitrosodimethylamine	(4)	(5)	ND	G or C	1/5 YR
621-64-7	N-Nitrosodi-n-propylamine	(4)	(5)	ND	G or C	1/5 YR
86-30-6	N-Nitrosodiphenylamine	(4)	(5)	ND	G or C	1/5 YR
129-00-0	Pyrene	625	10.0	ND	G or C	1/5 YR
120-82-1	1,2,4-Trichlorobenzene	625	10.0	ND	G or C	1/5 YR
VOLATILES						
107-07-8	Acrylonitrile	(4)	(5)	ND	G	1/5 YR
107-13-1	Acrylonitrile	(4)	(5)	ND	G	1/5 YR
71-43-2	Benzene	624	10.0	ND	G	1/5 YR
75-25-2	Bromoform	624	10.0	ND	G	1/5 YR
56-23-5	Carbon Tetrachloride	624	10.0	ND	G	1/5 YR
108-90-7	Chlorobenzene	624	50.0	ND	G	1/5 YR
124-48-1	Chlorodibromomethane	624	10.0	ND	G	1/5 YR
67-66-3	Chloroform	624	10.0	ND	G	1/5 YR
75-27-4	Dichlorobromomethane	624	10.0	ND	G	1/5 YR
107-06-2	1,2-Dichloroethane	624	10.0	ND	G	1/5 YR
75-35-4	1,1-Dichloroethylene	624	10.0	ND	G	1/5 YR
156-60-5	1,2-trans-dichloroethylene	(4)	(5)	ND	G	1/5 YR
78-87-5	1,2-Dichloropropane	(4)	(5)	ND	G	1/5 YR
342-75-6	1,3-Dichloropropene	(4)	(5)	ND	G	1/5 YR
100-41-4	Ethylbenzene	624	10.0	ND	G	1/5 YR
74-83-9	Methyl Bromide	(4)	(5)	ND	G	1/5 YR
75-09-2	Methylene Chloride	624	20.0	ND	G	1/5 YR
79-34-5	1,1,2,2-Tetrachloroethane	(4)	(5)	ND	G	1/5 YR
127-18-4	Tetrachloroethylene	624	10.0	ND	G	1/5 YR
10-88-3	Toluene	624	10.0	ND	G	1/5 YR

FACILITY NAME: Massanutton Public Service Corporation STP
 ADDRESS: P.O. Box 51
 Elkton, VA 22857

Permit No. VA0024732
 Attachment B
 Page 4 of 4

DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER QUALITY MONITORING

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
79-00-5	1,1,2-Trichloroethane	(3)	(5)	ND	G	1/5 YR
79-01-6	Trichloroethylene	624	10.0	ND	G	1/5 YR
75-01-4	Vinyl Chloride	624	10.0	ND	G	1/5 YR
ACID EXTRACTABLES ⁽⁶⁾						
95-57-8	2-Chlorophenol	625	10.0	ND	G or C	1/5 YR
120-83-2	2,4-Dichlorophenol	625	10.0	ND	G or C	1/5 YR
105-67-9	2,4-Dimethylphenol	625	10.0	ND	G or C	1/5 YR
51-28-5	2,4-Dinitrophenol	(4)	(5)	ND	G or C	1/5 YR
534-52-1	2-Methyl-4,6-Dinitrophenol	(4)	(5)	ND	G or C	1/5 YR
104-40-31	Nonylphenol	(4)	(5)	ND	G or C	1/5 YR
87-86-5	Pentachlorophenol	625	50.0	ND	G or C	1/5 YR
108-95-2	Phenol	625	10.0	ND	G or C	1/5 YR
88-06-2	2,4,6-Trichlorophenol	625	10.0	ND	G or C	1/5 YR
MISCELLANEOUS						
16887-00-6	Chloride	(4)	(5)	70	C	1/5 YR
57-12-5	Cyanide, Free	(4)	10.0	ND	G	1/5 YR
7783-06-4	Hydrogen Sulfide	(4)	(5)	ND	G or C	1/5 YR
60-10-5	Tributyltin ⁽⁵⁾	NBSR 85-3295	(5)	2.03	G or C	1/5 YR
471-34-1	Hardness (mg/L as CaCO ₃)	(4)	(5)	204	C	1/5 YR

Don Smiley AREA MANAGER
 Name of Principal Exec. Officer or Authorized Agent/Title

Don Smiley AREA MANAGER
 Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

FACILITY NAME: Massanutten Public Service Corporation STP
ADDRESS: P.O. Box 51
Elkton, VA 22857

Permit No. VA00024732
Attachment B
Footnotes

Footnotes to Water Quality Monitoring Attachment B

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metal samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) A specific analytical method is not specified; however a target value for each metal has been established. An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136). If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Metal</u>	<u>Analytical Method</u>
Antimony	1638; 1639
Arsenic	1632
Chromium ⁽⁹⁾	1639
Cadmium	1637; 1638; 1639; 1640
Chromium VI	1639
Copper	1638; 1640
Lead	1637; 1638; 1640
Mercury	1631
Nickel	1638; 1639; 1640
Selenium	1638; 1639
Silver	1638
Zinc	1638; 1639

- (4) Any approved method presented in 40 CFR Part 136.
- (5) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
- (6) Testing for phenols requires continuous extraction.
- (7) Analytical Methods: NBSR 85-1291 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996].
- (8) Both Chromium III and Chromium VI may be measured by the total chromium analysis. If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D.



Improving the environment, one client at a time...

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304) 255-2500
Website: www.reicons.com

3029-C Pyrites Creek Road
Roanoke, VA 24019
TEL: 540.777.1276

101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.348.0183

16 Commerce Drive
Weaver, WV 26501
TEL: 304.241.5861

Tuesday, December 09, 2014

Mr. Keith Sampson
UTILITIES, INC-Massanutten PSA
P.O. Box 51
Elkton, VA 22827

TEL: (540) 289-9922

FAX: (540) 289-3239

RE: MASSANUTTEN/ATTACHMENT A

Work Order #: 1411N39

Dear Mr. Keith Sampson:

REI Consultants, Inc. received 3 sample(s) on 11/19/2014 for the analyses presented in the following report.
Please find enclosed amended results. If you have any questions regarding these results, please do not
hesitate to call.

Sincerely,

Beth Johnson
Project Manager



Client: UTILITIES, INC-Massanutten PSA**Project:** MASSANUTTEN/ATTACHMENT A

The analytical results presented in this report were produced using documented laboratory SOPs that incorporate appropriate quality control procedures as described in the applicable methods. Verification of required sample preservation (as required) is recorded on associated laboratory logs. Any deviation from compliance or method modification is identified within the body of this report by a qualifier footnote which is defined at the bottom of this page.

All sample results for solid samples are reported on an "as-received" wet weight basis unless otherwise noted.

Results reported for sums of individual parameters, such as TTHM and HAA5, may vary slightly from the sum of the individual parameter results, due to rounding of individual results, as required by EPA.

The test results in this report meet all NELAP (and/or VELAP) requirements for parameters except as noted in this report.

Please note if the sample collection time is not provided on the Chain of Custody, the default recording will be 0:00:00. This may cause some tests to be apparently analyzed out of hold.

All tests performed by REIC Service Centers are designated by an annotation on the test code. All other tests were performed by REIC's Main Laboratory in Beaver, WV.

This report may not be reproduced, except in full, without the written approval of REIC.

DEFINITIONS:

MCL: Maximum Contaminant Level

MDL: Method Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.

Mg/Kg or mg/L: Units of part per million (PPM) - milligram per Kilogram (weight/weight) or milligram per Liter (weight/volume).

NA: Not Applicable

ND: Not Detected at the PQL or MDL

PQL: Practical Quantitation Limit; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below PQL are reported either as ND or as a number with a "J" qualifier.

Qual: Qualifier that applies to the analyte reported.

TIC: Tentatively Identified Compound, Estimated Concentration denoted by "J" qualifier.

Ug/Kg or ug/L: Units of part per billion (PPB) - microgram per kilogram (weight/weight) or microgram per liter (weight/volume).

QUALIFIERS:

X: Reported value exceeds required MCL

B: Analyte detected in the associated Method Blank at a concentration > 1/2 the PQL

E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be consider estimated.

H: Holding time for preparation or analysis has been exceeded.

J: Analyte concentration is reported, and is less than the PQL and greater than or equal to the MDL. The result reported is an estimate.

S: % REC (% recovery) exceeds control limits

CERTIFICATIONS:

Beaver, WV: WVDHHR 00412CM, WVDEP 060, VADCLS 00261, KYDEP 90039, TNDEQ TN02926, NCDWO 466, PADEP 68-00839, VADCLS (VELAP) 460148

Blossay (Beaver, WV): WVDEP 060, VADCLS(VELAP) 460148, PADEP 68-00839

Roanoke, VA: VADCLS(VELAP) 460150

Verona, VA: VADCLS(VELAP) 460151

Ashland, KY: KYDEP 00094, WV 389

Morgantown, WV: WVDHHR 003112M, WVDEP 387

REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client:	UTILITIES, INC-Massanutten PSA	Collection Date:	11/19/2014 8:30:00 AM
Project:	MASSANUTTEN/ATTACHMENT A	Date Received:	11/19/2014
Lab ID:	1411N39-01A	Matrix:	Liquid
Client Sample ID:	DAILY FINAL EFFLUENT COMP	Site ID:	ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
HARDNESS								
				Method: SM2340 B-1997			Analyst: JD	
Hardness, Total (As CaCO ₃)	204	NA	1.00	NA		mg/L	12/5/2014 2:59 PM	VA
ANIONS by ION CHROMATOGRAPHY								
				Method: EPA 300.0, Rev.2.1 (1993)			Analyst: CF	
Chloride	70.0	NA	2.00	NA		mg/L	11/20/2014 10:45 PM	PAVA

REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client: UTILITIES, INC-Massanutten PSA
Project: MASSANUTTEN/ATTACHMENT A
Lab ID: 1411N39-02A
Client Sample ID: DAILY FINAL EFFLUENT GRAB

Collection Date: 11/19/2014 8:30:00 AM
Date Received: 11/19/2014
Matrix: Liquid
Site ID: ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
METALS BY ICP-MS			Method: EPA 200.8 Rev. 5.4 (1994)			Analyst: LF		
Selenium	ND	NA	0.0050	NA		mg/L	12/2/2014 1:23 PM	PA/VA
Diazinon Only			Method: SW8141A			Analyst: Sub		
Diazinon	See Attached	NA	NA	NA		mg/L	11/26/2014 7:27 PM	
TRIBUTYL TIN			Method: NBSIR-85-3295			Analyst: Sub		
Tributyltin	See Attached	NA	0.25	NA	H	mg/L	11/28/2014 7:25 PM	
PESTICIDES/PCBS			Method: EPA 608			Analyst: NC		
Aroclor 1016	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Aroclor 1221	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Aroclor 1232	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Aroclor 1242	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Aroclor 1248	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Aroclor 1254	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Aroclor 1260	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Aldrin	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
alpha-BHC	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
beta-BHC	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
delta-BHC	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
gamma-BHC	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Chlordane	ND	NA	0.00503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
4,4'-DDD	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
4,4'-DDE	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
4,4'-DDT	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Dieldrin	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Endosulfan I	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Endosulfan II	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Endosulfan sulfate	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Endrin	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Endrin aldehyde	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Heptachlor	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Heptachlor epoxide	ND	NA	0.000503	NA		mg/L	11/26/2014 1:03 PM	PA/VA
Toxaphene	ND	NA	0.00503	NA		mg/L	11/26/2014 1:03 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client: UTILITIES, INC-Massanutten PSA
Project: MASSANUTTEN/ATTACHMENT A
Lab ID: 1411N39-02A
Client Sample ID: DAILY FINAL EFFLUENT GRAB

Collection Date: 11/19/2014 8:30:00 AM
Date Received: 11/19/2014
Matrix: Liquid
Site ID: ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
Surr: tetrachloro-m-xylene	88.0	NA	19.49-150	NA		%REC	11/26/2014 1:03 PM	

Notes:

Insufficient sample was available to prepare and analyze a matrix spiked quality control sample. Accuracy assessment was based on a lab control sample.

SEMIVOLATILE ORGANIC COMPOUNDS

Method: EPA 625 (1982)

Analyst: JD

Acenaphthene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Anthracene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Benzo(a)anthracene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Benzidine	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Benzo(a)pyrene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Benzo(b)fluoranthene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Benzo(k)fluoranthene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Bis(2-chloroethyl)ether	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Bis(2-chloroisopropyl)ether	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Bis(2-ethylhexyl)phthalate	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Butyl benzyl phthalate	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
2-Chloronaphthalene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA
2-Chloronaphthalene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
2-Chlorophenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Chrysene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Dibenz(a,h)anthracene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Di-n-butyl phthalate	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
1,2-Dichlorobenzene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA
1,3-Dichlorobenzene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA
1,4-Dichlorobenzene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA
3,3'-Dichlorobenzidine	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
2,4-Dichlorophenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Diethyl phthalate	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
2,4-Dimethylphenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Dimethyl phthalate	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
4,6-Dinitro-2-methylphenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
2,4-Dinitrophenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
2,4-Dinitrotoluene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Fluoranthene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Fluorene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client: UTILITIES, INC-Massanutten PSA
Project: MASSANUTTEN/ATTACHMENT A
Lab ID: 1411N39-02A
Client Sample ID: DAILY FINAL EFFLUENT GRAB

Collection Date: 11/19/2014 8:30:00 AM
Date Received: 11/19/2014
Matrix: Liquid
Site ID: ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
Hexachlorobenzene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Hexachlorobutadiene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Hexachlorocyclopentadiene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Hexachloroethane	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Indeno(1,2,3-cd)pyrene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Isophorone	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Nitrobenzene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
N-Nitrosodi-n-propylamine	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
N-Nitrosodimethylamine	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
N-Nitrosodiphenylamine	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Pentachlorophenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Phenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Pyrene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
1,2,4-Trichlorobenzene	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
2,4,6-Trichlorophenol	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM	PA/VA
Surr: 2-Fluorophenol	41.1	NA	25.9-110	NA		%REC	11/25/2014 8:00 PM	
Surr: Phenol-d5	29.9	NA	8.2-110	NA		%REC	11/25/2014 8:00 PM	
Surr: Nitrobenzene-d5	79.8	NA	62.2-110	NA		%REC	11/25/2014 8:00 PM	
Surr: 2-Fluorobiphenyl	87.5	NA	54.6-110	NA		%REC	11/25/2014 8:00 PM	
Surr: 2,4,6-Tribromophenol	72.1	NA	61.7-110	NA		%REC	11/25/2014 8:00 PM	
Surr: 4-Terphenyl-d14	94.5	NA	10.7-110	NA		%REC	11/25/2014 8:00 PM	

Notes:

The CCV for Hexachlorocyclopentadiene exceeded REIC control limits indicating a high bias. Since the analyte result was ND, this exceedance does not adversely impact data usability.

SEMIVOLATILE ORGANIC COMPOUNDS

Method: SW8270D (2007)

Analyst: JD

Chlorpyrifos	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Demeton, Total	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Guthion	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Kapone	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Malathion	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Methoxychlor	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Mirex	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Nonylphenol	ND	NA	0.0102	NA		mg/L	12/4/2014 11:08 PM
Parathion	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
1,2-Diphenylhydrazine	ND	NA	0.0102	NA		mg/L	11/25/2014 8:00 PM
Surr: 2-Fluorophenol	41.1	NA	32.9-110	NA		%REC	11/25/2014 8:00 PM
Surr: Phenol-d5	29.9	NA	25.8-110	NA		%REC	11/25/2014 8:00 PM
Surr: 2,4,6-Tribromophenol	72.1	NA	63.8-110	NA		%REC	11/25/2014 8:00 PM

REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client: UTILITIES, INC-Massanutten PSA
Project: MASSANUTTEN/ATTACHMENT A
Lab ID: 1411N39-02A
Client Sample ID: DAILY FINAL EFFLUENT GRAB

Collection Date: 11/19/2014 8:30:00 AM
Date Received: 11/19/2014
Matrix: Liquid
Site ID: ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
Surr: Nitrobenzene-d5	79.6	NA	61.8-110	NA		%REC	11/25/2014 8:00 PM	
Surr: 2-Fluorobiphenyl	87.5	NA	58.8-110	NA		%REC	11/25/2014 8:00 PM	
Surr: 4-Terphenyl-d14	84.5	NA	55.1-110	NA		%REC	11/25/2014 8:00 PM	

ACROLEIN BY E624

Method: EPA 624

Analyst: JM

Acrolein	ND	NA	10	NA		µg/L	11/20/2014 2:54 PM	PA/VA
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VOLATILE ORGANIC COMPOUNDS

Method: EPA 624

Analyst: JM

1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
1,2-Dibromoethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA
1,2-Dichloroethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
1,2-Dichloropropane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
1,3-Dichloropropane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	
Acrylonitrile	ND	NA	10.0	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Benzene	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Bromochloromethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA
Bromodichloromethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Bromoform	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Bromomethane <i>methyl bromide</i>	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Chlorobenzene	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Chloroform	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Ethylbenzene	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Methylene chloride	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Toluene	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Trichloroethene	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Vinyl chloride	ND	NA	1.00	NA		µg/L	11/20/2014 2:54 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	104	NA	68.7-129	NA		%REC	11/20/2014 2:54 PM	
Surr: 4-Bromofluorobenzene	96.6	NA	71.8-127	NA		%REC	11/20/2014 2:54 PM	
Surr: Dibromofluoromethane	108	NA	74.3-124	NA		%REC	11/20/2014 2:54 PM	
Surr: Toluene-d8	93.3	NA	71.4-129	NA		%REC	11/20/2014 2:54 PM	

REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client: UTILITIES, INC-Massanutton PSA
 Project: MASSANUTTEN/ATTACHMENT A
 Lab ID: 1411N39-02A
 Client Sample ID: DAILY FINAL EFFLUENT GRAB

Collection Date: 11/19/2014 8:30:00 AM
 Date Received: 11/19/2014
 Matrix: Liquid
 Site ID: ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
SULFIDE								
			Method: SW9034 (1996)				Analyst: CC	
Sulfide (As S)	ND	NA	1.00	NA		mg/L	11/25/2014 5:05 PM	
HEXAVALENT CHROMIUM BY IC								
			Method: EPA 218.6, Rev. 3.3 (1994)				Analyst: CF	
Chromium (VI)	ND	NA	0.0010	NA		mg/L	11/20/2014 3:41 PM	PA/VA
CYANIDE, Free								
			Method: SM4500-CN I-1997				Analyst: JH	
Cyanide, Free	ND	NA	0.020	NA		mg/L	11/24/2014 11:38 AM	

REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client: UTILITIES, INC-Massanutten PSA
Project: MASSANUTTEN/ATTACHMENT A
Lab ID: 1411N39-02B
Client Sample ID: DAILY FINAL EFFLUENT GRAB

Collection Date: 11/19/2014 8:30:00 AM
Date Received: 11/19/2014
Matrix: Liquid
Site ID: ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
DISSOLVED METALS BY ICP-MS			Method: EPA 200.8 Rev. 5.4 (1994)			Analyst: LF		
Antimony	ND	NA	0.0010	NA		mg/l	12/2/2014 1:29 PM	PA/VA
Arsenic	ND	NA	0.0050	NA		mg/L	12/2/2014 1:29 PM	PA/VA
Cadmium	ND	NA	0.0010	NA		mg/L	12/2/2014 1:29 PM	PA/VA
Chromium	ND	NA	0.0050	NA		mg/L	12/2/2014 1:29 PM	PA/VA
Copper	0.0124	NA	0.0050	NA		mg/L	12/2/2014 1:29 PM	PA/VA
Lead	ND	NA	0.0010	NA		mg/l	12/2/2014 1:29 PM	PA/VA
Nickel	ND	NA	0.0100	NA		mg/L	12/2/2014 1:29 PM	PA/VA
Silver	ND	NA	0.0050	NA		mg/L	12/2/2014 1:29 PM	PA/VA
Thallium	ND	NA	0.0010	NA		mg/L	12/2/2014 1:29 PM	PA/VA
Zinc	0.0434	NA	0.0100	NA		mg/L	12/2/2014 1:29 PM	PA/VA

MERCURY, Dissolved

Method: EPA 245.1, Rev. 3.0 (1994)

Analyst: CR

Mercury	ND	NA	0.0010	NA		mg/L	12/4/2014 1:01 PM
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REI Consultants, Inc. - Analytical Report

WO#: 1411N39

Date Reported: 12/9/2014

Client: UTILITIES, INC-Massanutten PSA
Project: MASSANUTTEN/ATTACHMENT A
Lab ID: 1411N39-03A
Client Sample ID: TRIP BLANK

Collection Date: 11/19/2014 8:30:00 AM
Date Received: 11/19/2014
Matrix: Trip Blank
Site ID: ELKTON,VA

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
VOLATILE ORGANIC COMPOUNDS			Method: EPA 624			Analyst: JM		
1,1,2,2-Tetrachloroethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
1,1,2-Trichloroethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
1,1-Dichloroethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
1,2-Dibromoethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA
1,2-Dichloropropane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
1,3-Dichloropropane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	
Acrylonitrile	ND	NA	10.0	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Benzene	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Bromochloromethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA
Bromodichloromethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Bromoform	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Bromomethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Carbon tetrachloride	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Chlorobenzene	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Chloroform	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Dibromochloromethane	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Ethylbenzene	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Methylene chloride	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Tetrachloroethene	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Toluene	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
trans-1,2-Dichloroethene	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Trichloroethene	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Vinyl chloride	ND	NA	1.00	NA		µg/L	11/25/2014 1:01 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	101	NA	68.7-129	NA		%REC	11/25/2014 1:01 AM	
Surr: 4-Bromofluorobenzene	98.2	NA	71.8-127	NA		%REC	11/25/2014 1:01 AM	
Surr: Dibromofluoromethane	109	NA	74.3-124	NA		%REC	11/25/2014 1:01 AM	
Surr: Toluene-d8	88.8	NA	71.4-129	NA		%REC	11/25/2014 1:01 AM	